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COMMENTS ON THE ITALIAN HYBRID CORN PROGRAM
(By A. J. Nichols)

American and Italian participants in the Italian hybrid corn program may take great pride in what they have accomplished in a relatively short period of time. Starting from scratch in 1945 the promoters of this program had succeeded in securing hybrid corn use on more than 8 percent of Italy's corn land by the fall of 1952. The increase in yield in 1952 alone amounted to 220,000 tons, worth approximately 20 million dollars. The outlook for a continued expansion of hybrid corn use was favorable.

Why has this program been so successful? Granting that some mistakes were made in the conduct of the program, what should be done differently if the program were to be repeated under similar conditions? My analysis tends to coincide to a large degree with the analysis of the promoters of the program.

A. Reasons for the Success of the Program

The major reasons for the success of the program are:

1. The presence of the following favorable environmental factors: The basic friendly attitude of Italians toward Americans and their belief that American technology had something to offer them; the great need for increased food production; the desire of the new Italian government to help the farmers; and the prestige of the provincial inspectors.
2. The fact that Italy was a corn country, and the farmers were accustomed to growing corn. In addition, the presence of the fertile Po Valley and the presence of commercial farmers oriented toward a cash economy were highly important factors.
3. The need of farmers for a higher producing corn variety. Corn production had been decreasing for years.
4. The nature of the innovation itself. Hybrid corn has one characteristic setting it apart from many other farm practices or techniques for which diffusion has been far less rapid. Hybrid corn is infinitely divisible. The potential acceptor can try out the technique on a very small scale. Therefore, no farmer was forced to make an economically serious decision to try out the new type of seed.
5. The soundness of the initial approach. The work of Military Government, UNRRA, and FAO with their emphasis on testing, research and demonstration laid a firm foundation for the ECA program.

6. The knowledge of the excellent performance of hybrid corn in the United States, and the strong belief of leading Italian and American officials that hybrid corn should do equally as well in Italy. It seemed to them that there was no over-riding reason why hybrid corn could not be introduced into Italy. This confidence was a substantial factor in carrying the program forward to success.
7. Once introduced, the excellent performance of American hybrid corn in many areas of Italy, particularly the Po Valley. In other words, the great difference in yield of the hybrid over the native corn.
8. The quality and thoroughness of the educational program - exhibits, demonstrations, bulletins, films and general publicity.
9. The use of a subsidy for farmers, especially during the first year.
10. The technical assistance rendered by the Ministry, UNRRA, FAO, ECA, Federconsorzi, seed companies and others. For instance, the use of Dr. Jenkins in Italy and the sending of Italian technicians to the United States for training. Likewise, the technical follow through given to the program by Fenaroli, Germann and others.
11. The promotional and research efforts of the three competitive seed companies. In this connection ECA's guarantee on investments of the seed companies.
12. The free distribution of 300 tons of seed by the church. This was a factor in the introduction of hybrid corn among smaller producers.
13. The support of the Federconsorzi and other farm organizations.
14. The faith of Fenaroli in hybrid corn, and his leadership in promoting the program.
15. ECA's strong leadership and support of the program administratively, technically and financially. McClelland, Jenkins, and Germann were particularly outstanding in their contributions.
16. The failure of the old line seed companies and the Communist Party to develop an effective opposition to the program.
17. The salesmanship of one farmer to another once the hybrid corn had been tried.

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B. What Should Have Been Done Differently?

Any program that has met the success that this one has leaves the appraiser in a poor position to find fault with its development and implementation, for the success of the program far overshadows the few and minor mistakes that were made. Hindsight, of course, permits one to point here and there, and say "Well, now if that had been done, the program would have gone off more smoothly." That is true - but in justice to the promoters of the program - we should also keep in mind that many of the facts that we know now were not self-evident at the time that the decisions had to be made.

Nevertheless, it may be fruitful to list some of the points that come to mind in looking back, points that might have been helpful in improving the progress of the program. Most of these have already been mentioned by the promoters of the program.

1. The propaganda issued by the Ministry and ECA in 1949 on the results of the hybrid corn tests in 1947 and 1948 tended to be too broad and general in relation to the actual experience in Italy. Promoters of the program agree (in retrospect) that the tests in 1947 and 1948 gave adequate information upon which to generalize for some areas of Italy, but not for others. Consequently, the tendency to over generalize resulted in inaccurate information being given to some farmers.

2. The failure to send technical representatives from the Rome ECA Mission and the Ministry to the United States to make the first large purchase of hybrid seed (2,000 tons) in the fall of 1948 resulted in numerous technological problems (poor seed, bagging, etc.) that could have been avoided.

3. The lack of a thorough understanding between the Mission and the Ministry in 1948 concerning the procedures for purchasing the seed for the 1949 season resulted in considerable confusion and some embarrassment to ECA and the Ministry before the purchase matter was finally settled.

4. The failure to thoroughly coordinate the program of free distribution of seed by the church with the ECA/Ministry caused considerable confusion among farmers in 1951 and retarded the promotional effort.

5. Mr. McClelland's enthusiasm for hybrid corn proved to be a weakness at times as well as a strength in the conduct of the program. His desire to import 4,000 tons of seed for the 1951 season, for instance, if realized, would, indeed, have put the Mission and the Ministry in trouble. Fortunately the conservativeness of the Ministry held the amount to 2,200 tons

As the reader of the case study knows, even this amount caused headaches before it was disposed.

6. Earlier and more aggressive attention to the research problem of finding suitable hybrids for Central and South Italy would have been advantageous.

7. Not enough attention was given to educating Agricultural Inspectors on the characteristics and uses of hybrid corn in 1948 and 1949.

8. This point deals with people and customs and getting people to accept new ways. One wonders if an early study of the merits of hybrid vs native corn for making polenta might not have produced some leads which would have been useful in an educational campaign in the polenta eating areas of Italy.

I should also like to comment on two points that many of the participants in the program make, namely:

1. "A policy should have been established on the use of the subsidy in the beginning which would have given increasing farmer prices on the sale of the hybrid seed to farmers, and

2. "The decision to jump from a 50 ton demonstrational program in 1948 to a 2,000 ton importation in 1949 involved too much risk. If the program were to be repeated under similar conditions, it would be better to favor a more moderate approach."

Regarding the subsidy point, I would agree in principle. In actual practice I do not think it was feasible. I feel that Cottam and Tetro are quite right in their stand that it was not possible under the dynamic conditions that existed at the time.

While the decision to jump from a 50 ton demonstrational program in 1948 to a 2,000 ton one in 1949 turned out satisfactorily, I would agree that a more moderate approach would normally be the one to follow.

C. Administrative and Program Questions

One of the functions of a case study is to raise questions for further reflection and study. The Italian hybrid corn case study does an admirable job in this respect. Some of these questions are:

1. Should the head of an agricultural technical assistance mission strive to find a project, such as a hybrid corn one, to spearhead his overall agricultural technical assistance effort?

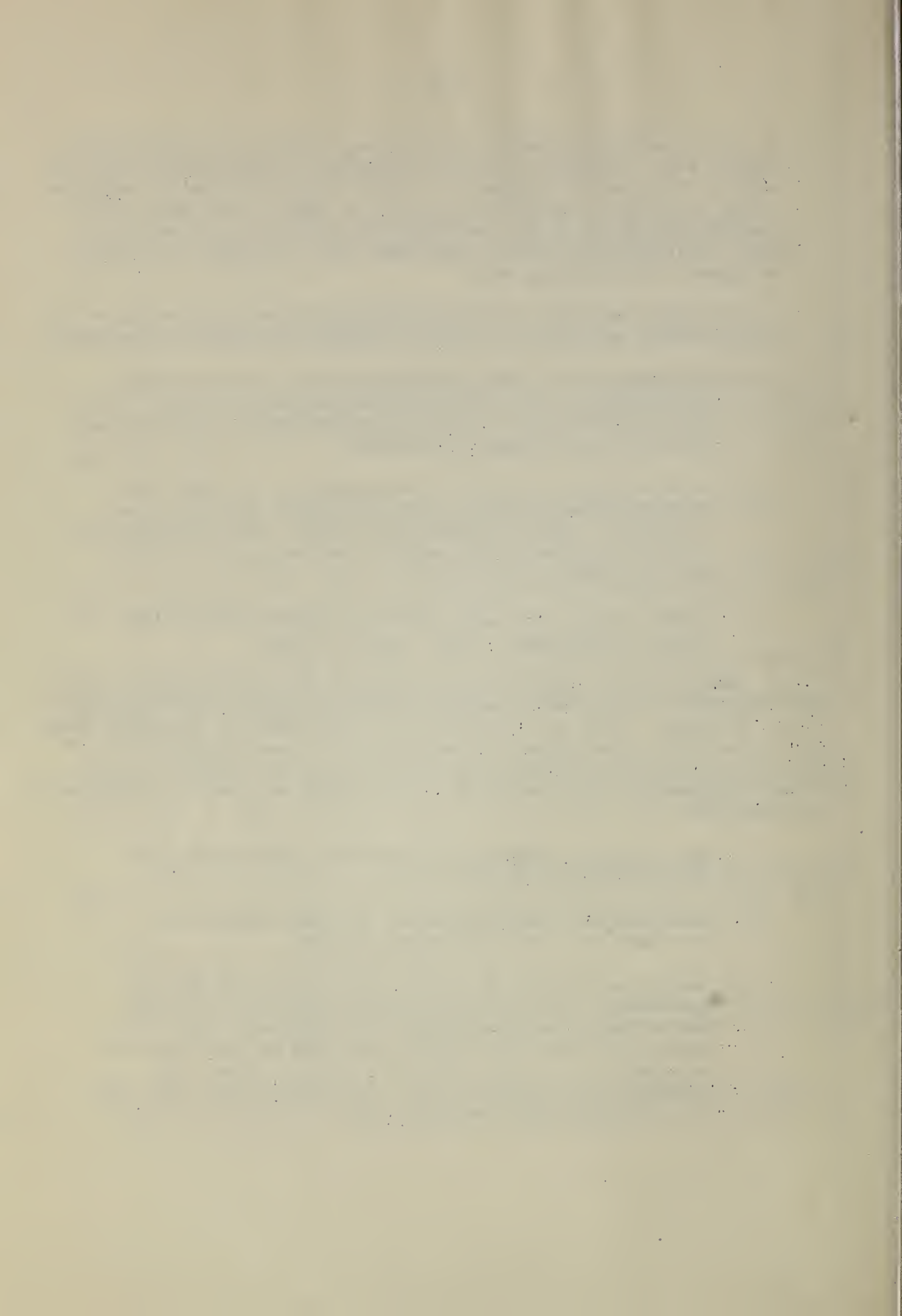
2. If the answer to question one is yes, how does the administrator promote such a project to gain its advantages without endangering the welfare of his entire program? In other words, how does the administrator avoid the problem of having all his eggs in one basket from a prestige standpoint in the event that his strategic project should fail? What implications does this have for the conduct of project propaganda and publicity work?

3. From the standpoint of program development and implementation the Italian hybrid corn story points up a number of fundamental questions:

- a) How important is local participation in program planning in a project, such as hybrid corn introduction, in a society accustomed to receiving and accepting instructions from the top governmental circles?
- b) At what point, or stage of development of the research-demonstration approach, is it appropriate to embark upon a vigorous commercial production effort? This question is closely linked with the overall time factor, how rapidly can a program be implemented.
- c) Under dynamic conditions how far in advance should the technical assistance worker strive to plan?

4. Members of the Agricultural Division of the ECA Rome Mission felt that they were working under conditions of much program responsibility but little authority. They have pointed to (1) the necessity of getting clearance and approval from higher ECA headquarters on most program steps of significance, and (2) the necessity of persuading the Italian officials on each substantive point before any action could be expected. This raises the questions:

- a) Was authority delegated to the field commensurate with field program responsibility?
- b) Would greater decentralization from ECA headquarters have made for a more effective program?
- c) Would the frustrations of the personnel of the Mission in working with the Ministry have been less if they had had a clearer understanding of the different kinds of authority - that in a relationship such as this they had to depend for the most part on technical rather than administrative authority, that they had to gain their ends through stimulation and good will?



- d) What techniques must the technical assistance administrator develop and employ in the conduct of technical assistance work with the officials of the host country?

5. Should the technical assistance administrator work directly with representatives of private groups as well as with officials of the host country in the **conduct** of a technical assistance effort? If so, what are the advantages and disadvantages of such a procedure?

6. The detail of a foreign technician, such as Germann in the Italian hybrid corn program, to the immediate staff of the host country's minister of agriculture has been used frequently in technical assistance operations. When such an assignment is made, it is not uncommon for the relationships of this technician to the technical assistance mission proper to become suspect on questions of loyalty. The questions arise (1) is there really a substantial program advantage in such an assignment, and (2) does it outweigh the drawbacks of separation from the personnel of the Mission with its attendant feelings of distrust of loyalties and the like?

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